

IN THE CLAIMS

Although no claim amendments are presented herein, for the Examiner's convenience a complete listing of the claims is provided below.

1-9. (Canceled)

10. (Previously Presented) A print head substrate on which is provided a print head assembly, the print head substrate having an ink supply opening, the print head assembly comprising:

an array of printing elements provided along the ink supply opening and divided into a plurality of groups of printing elements;

an array of driving circuits provided along the ink supply opening and arranged to correspond to the printing elements, respectively, for driving the corresponding printing elements, respectively;

a selection circuit common to the plurality of groups of printing elements of the array for selecting a printing element to be driven in each group; and

data supply means for supplying driving data to the driving circuits,

wherein the selection circuit has common lines through which electric signals are supplied for driving the plurality of groups of printing elements of the array by selecting a printing element to be driven in each group, and

wherein the data supply means comprises a plurality of shift registers, the plurality of shift registers are provided at both longitudinal ends of the ink supply opening, and each shift register is arranged to supply driving data to one or more of the driving circuits for driving the

corresponding printing elements, of the plurality of groups of printing elements, which are closer than non-corresponding printing elements to the shift register.

11. (Previously Presented) A print head substrate according to claim 10, wherein a plurality of the print head assemblies are provided on the substrate.

12. (Previously Presented) A print head substrate according to claim 10, wherein the plurality of shift registers receive clock and data signals, and the data supply means further comprises a plurality of latches for latching output signals from the shift registers, and AND circuits for deriving a logical product of outputs from the latches and a driving signal.

13. (Previously Presented) A print head substrate according to claim 10, wherein there are two shift registers arranged at respective ends of the printing element array.

14. (Previously Presented) A print head substrate according to claim 10, wherein the array of printing elements extends alongside an ink supply port.

15. (Previously Presented) A print head substrate according to claim 12, wherein the array of printing elements extends alongside an ink supply port.

16. (Previously Presented) A print head substrate according to claim 10, wherein said selection circuit is arranged at one end of the printing element array.

17. (Previously Presented) A print head substrate according to claim 10, wherein said substrate is a rectangle and the printing element array extends along the length of the rectangle.

18. (Previously Presented) A print head comprising a print head substrate on which is provided a print head assembly, the print head substrate having an ink supply opening, the print head assembly comprising:

an array of printing elements provided along the ink supply opening and divided into a plurality of groups of printing elements;

an array of driving circuits provided along the ink supply opening and arranged to correspond to the printing elements, respectively, for driving the corresponding printing elements, respectively;

a selection circuit common to the plurality of groups of printing elements of the array for selecting a printing element to be driven in each group; and

data supply means for supplying driving data to the driving circuits,

wherein the selection circuit has common lines through which electric signals are supplied for driving the plurality of groups of printing elements of the array by selecting a printing element to be driven in each group, and

wherein the data supply means comprises a plurality of shift registers, the plurality of shift registers are provided at both longitudinal ends of the ink supply opening, and each shift register is arranged to supply driving data to one or more of the driving circuits for driving the corresponding printing elements, of the plurality of groups of printing elements, which are closer than non-corresponding printing elements to the shift register.

19. (Previously Presented) A print head according to claim 18, wherein the print head is an ink jet head for printing data by discharging ink.

20. (Previously Presented) A print head according to claim 19, wherein the print head comprises electrothermal transducing means for generating thermal energy to cause ink discharge.

21. (Previously Presented) A print head cartridge comprising:
a print head having a print head substrate on which is provided a print head assembly, the print head substrate having an ink supply opening, the print head assembly comprising an array of printing elements provided along the ink supply opening and divided into a plurality of groups of printing elements, an array of driving circuits provided along the ink supply opening and arranged to correspond to the printing elements, respectively, for driving the corresponding printing elements, respectively, a selection circuit common to the plurality of groups of printing elements of the array for selecting a printing element to be driven from each group, and data supply means for supplying driving data to the driving circuits, wherein the selection circuit has common lines through which electric signals are supplied for driving the plurality of groups of printing elements of the array by selecting a printing element to be driven from each group, and wherein the data supply means comprises a plurality of shift registers, the plurality of shift registers are provided at both longitudinal ends of the ink supply opening, and each shift register is arranged to supply driving data to one or more of the driving circuits for driving the corresponding printing elements, of the plurality of groups of printing elements, which are closer than non-corresponding printing elements to the shift register; and

an ink tank for storing ink to be supplied to the print head.

22. (Previously Presented) A printing apparatus for printing data, the apparatus comprising:

a print head having a print head substrate on which is provided a print head assembly, the print head substrate having an ink supply opening, the print head assembly comprising an array of printing elements provided along the ink supply opening and divided into a plurality of groups of printing elements, an array of driving circuits provided along the ink supply opening and arranged to correspond to the printing elements, respectively, for driving the corresponding printing elements, respectively, a selection circuit common to the plurality of groups of printing elements of the array for selecting a printing element to be driven from each group, and data supply means for supplying driving data to the driving circuits, wherein the selection circuit has common lines through which electric signals are supplied for driving the plurality of groups of printing elements of the array by selecting a printing element to be driven from each group, and wherein the data supply means comprises a plurality of shift registers, the plurality of shift registers are provided at both longitudinal ends of the ink supply opening, and each shift register is arranged to supply driving data to one or more of the driving circuits for driving the corresponding printing elements, of the plurality of groups of printing elements, which are closer than non-corresponding printing elements to the shift register; and

driving data generation means for generating a data signal for each path of the shift registers.